

Association between body roundness index and myopia among US adolescents: a cross-sectional study of NHANES 2001-2006

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Telephone: 86-13698636748 (J.S); 86-13953113696 (H.S) Supporting Information

S1 Table Weighted ordinal logistic regression analysis on the association between BRI and myopia

	Model 1		Model 2		Model 3	
	OR(95% CI)	P Value	OR(95% CI)	P Value	OR(95% CI)	P Value
BRI continuous	1.05 (1.01~1.10)	0.013	1.05 (1.01~1.09)	0.029	1.05 (1.01~1.09)	0.020
BRI-Q1	-	0.001	-	0.002	-	0.001
BRI-Q2	0.98(0.83~1.15)		0.93 (0.79~1.10)		0.93 (0.79~1.09)	
BRI-Q3	0.92(0.74~1.14)		0.85(0.68~1.06)		0.85(0.68~1.06)	
BRI-Q4	1.33(1.08~1.62)		1.23(1.01~1.51)		1.26 (1.03~ 1.53)	

Data are presented as OR (95% CI). Model 1: no adjustment; Model 2: adjusted for age, sex, race/ethnicity; Model 3: adjusted for age, sex, race/ethnicity PIR, Ref Education, VD, Mets, ST. OR, odds ratio; CI, confidence interval; BRI, body roundness index; Ref Education, Education level of guardian; PIR, poverty income ratio; Mets, Metabolic equivalents; ST, Screen time; VD, Serum vitamin D. Q1, 1st quartile; Q2, 2nd quartile; Q3, 3rd quartile; Q4, 4th quartile. global p-value, Wald test for each variable.

S2 Table Weighted logistic regression analysis on the association between WHtR and myopia

	Model 1		Model 2		Model 3	
	OR(95% CI)	P Value	OR(95% CI)	P Value	OR(95% CI)	P Value
WHtR continuous	3.196 (1.407 ~ 7.260)	0.008	2.640 (1.175 ~ 5.932)	0.024	2.662 (1.198 ~ 5.913)	0.022
WHtR-Q1	Reference	-	Reference	-	Reference	-
WHtR-Q2	0.989 (0.834 ~ 1.172)	0.900	0.941 (0.791 ~ 1.119)	0.496	0.936 (0.790 ~ 1.109)	0.452
WHtR-Q3	0.919 (0.740 ~ 1.141)	0.448	0.843 (0.672 ~ 1.059)	0.151	0.837 (0.664 ~ 1.055)	0.143
WHtR-Q4	1.349 (1.116 ~ 1.630)	0.004	1.255 (1.036 ~ 1.522)	0.026	1.261 (1.046 ~ 1.521)	0.022
P for trend		0.002		0.010		0.008

Data are presented as OR (95% CI).Model 1: no adjustment; Model 2: adjusted for age, sex, race/ethnicity;

Model 3: adjusted for age; sex; race/ethnicity ; PIR; Ref Education; VD; Mets; ST.

OR, odds ratio; CI, confidence interval; WHtR, Waist-to-Height Ratio; Ref Education, Education level of guardian;

PIR, poverty income ratio; Mets, Metabolic equivalents; ST, Screen time; VD, Serum vitamin D.

S3 Table Weighted robust Poisson regression analysis on the association between BRI and myopia

	Model 1		Model 2		Model 3	
	PR(95% CI)	P Value	PR(95% CI)	P Value	PR(95% CI)	P Value
BRI continuous	1.03 (1.01 ~ 1.05)	0.007	1.03 (1.00 ~ 1.05)	0.018	1.03 (1.00 ~ 1.05)	0.018
BRI-Q1	Reference	-	Reference	-	Reference	-
BRI-Q2	0.99 (0.90 ~ 1.10)	0.900	0.97(0.87 ~ 1.07)	0.505	0.96 (0.87 ~ 1.07)	0.466
BRI-Q3	0.95 (0.84 ~ 1.08)	0.449	0.91 (0.79 ~ 1.04)	0.160	0.90 (0.79 ~ 1.04)	0.152
BRI-Q4	1.17 (1.06 ~ 1.30)	0.004	1.13 (1.01 ~ 1.25)	0.030	1.13 (1.02 ~ 1.25)	0.025
P for trend		<0.001		0.003		0.002

Data are presented as PR (95% CI).Model 1: no adjustment; Model 2: adjusted for age, sex, race/ethnicity; Model 3: adjusted for age, sex, race/ethnicity PIR, Ref Education,VD,Mets,ST.PR, Prevalence ratio; CI, confidence interval; BRI, body roundness index;Ref Education,

Education level of guardian; PIR, poverty income ratio; Mets, Metabolic equivalents;; ST, Screen time; VD,Serum vitamin D; Q1, 1st quartile; Q2, 2nd quartile; Q3, 3rd quartile; Q4, 4th quartile.

S4 Table. Weighted logistic regression analysis on the association between BRI and myopia

	Model 1		Model 2		Model 3	
	OR(95% CI)	P Value	OR(95% CI)	P Value	OR(95% CI)	P Value
BRI continuous	1.06 (1.01 ~ 1.11)	0.011	1.05 (1.01 ~ 1.10)	0.019	1.06 (1.02 ~ 1.11)	0.008
BRI-Q1	Reference	-	Reference	-	Reference	-
BRI-Q2	0.95 (0.79 ~ 1.13)	0.538	0.90 (0.75 ~ 1.07)	0.229	0.90 (0.75 ~ 1.08)	0.254
BRI-Q3	0.91 (0.74 ~ 1.14)	0.409	0.83 (0.67 ~ 1.04)	0.098	0.85 (0.68 ~ 1.06)	0.137
BRI-Q4	1.42 (1.13 ~ 1.78)	0.004	1.03 (1.06 ~ 1.63)	0.015	1.38 (1.11~ 1.72)	0.006
P for trend		<0.001		0.001		<0.001

Myopia is defined by the threshold of -1.00 D. Data are presented as OR (95% CI).Model 1: no adjustment; Model 2: adjusted for age, sex, race/ethnicity; Model 3: adjusted for age, sex, race/ethnicity PIR, Ref Education, VD, Mets, ST. OR, odds ratio; CI, confidence interval; BRI, body roundness index;Ref Education, Education level of guardian; PIR, poverty income ratio; Mets, Metabolic equivalents; ST, Screen time; VD,Serum vitamin D; Q1, 1st quartile; Q2, 2nd quartile; Q3, 3rd quartile; Q4, 4th quartile.